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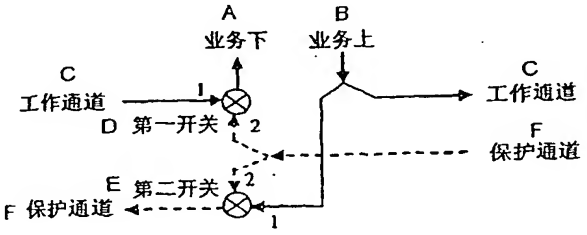
(54) Title: AN APPARAUTS FOR IMPLEMENTING OPTICAL CHANNEL SHARED PROTECTION IN WDM SYSTEM AND THE METHOD THEREOF

(54) 发明名称: 波分复用系统中光通道共享保护的实现方法及装置



A DOWNWARD TRAFFIC
B UPWARD TRAFFIC
C WORKING CHANNEL
D FIRST SWITCH
E SECOND SWITCH
F PROTECTION CHANNEL

(57) Abstract: An apparatus for implementing optical channel shared protection in WDM system and the method thereof, in a node of a optical network system, sets two switches for each working channel and a backup channel of the working channel that pass the node, each switch has two ingresses and one egress; when receiving a signal, controls the first switch to select the working channel or the backup channel to receive a downward traffic signal sent to local place; when transmitting a signal, sends an upward traffic signal which is sent from local place to the upward direction of the working channel and one ingress of the second switch respectively; controls the second switch to select a signal from the local upward traffic signal and downward traffic signal sent by the backupalt channel, and transmits the signal to the upward direction of the backup channel. The present invention reduces the cost for constructing the system greatly, saves the budget of optical power, and improves the OSNR.

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WO 2005/101712 A1